

**A. Cover Sheet** *(Attach to front of proposal.)*

1. Specify: ☐ agricultural project or ☒ urban project ☒ individual application or ☐ joint application
2. Proposal title concise but descriptive: Demonstration project to quantify water requirements for landscape use consistent with BMP 5
3. Principal applicant organization or affiliation: Metropolitan Water District of Southern California
4. Contact name, title: Peter A. Louie, Interim Conservation Manager
5. Mailing address: Post Office Box 54153, Los Angeles, California 90054-0153
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8. E-mail: [plouie@mwd.dst.ca.us](mailto:plouie@mwd.dst.ca.us)
9. Funds requested dollar amount: \$500,000
10. Applicant cost share funds pledged dollar amount: \$50,000
11. Duration (month/year to month/year): 07/2001 to 08/2002
12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted: See attachment #(1) list of legislators
13. Location and geographic boundaries of the project: See attached #(2) service area map
14. Name and signature of official representing applicant. By signing below, the applicant declares the following: the truthfulness of all representations in the proposal;  
the individual signing the form is authorized to submit the application on behalf of the applicant  
the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

Stephen N. Arakawa  
*(printed name of applicant)*

February 14, 2001  
*(date)*

*(signature of applicant)*

## **B. Scope of Work**

### **Abstract**

Best Management Practices (BMP#5) calls for setting water use budgets for large landscapes that have dedicated irrigation meters. A water budget is an estimate of water needed for a given landscape site, based on the size, types of vegetation, and the local climatic conditions. The estimated water budget is to be provided to the management of the landscape site, showing the budget compared to their actual water use. The intent is for customers to reduce their water consumption to stay within the budget amount.

BMP#5 uses an estimate of water use reduction of 15 percent. To date, there have been no studies to determine actual water savings achievable through these voluntary water budgets. In order for water agencies to justify the costs of implementing water budgets, they need documentation of water savings achievable.

This project would be done in conjunction with several of Metropolitan's member agencies, in order to get information across a wide range of areas to include variances in economic areas, social influences, and weather variations. Tasks to be carried out for this project include:

- 1) Identifying sample sites
- 2) Identifying dedicated water meter accounts
- 3) Gathering and organizing base-line water-use data
- 4) Measuring landscape areas
- 5) Developing water budgets
- 6) Developing a distribution method for providing the water budget information to the customer
- 7) Monitoring sites for water budget compliance
- 8) Tracking the water savings
- 9) Writing a final report on findings

This study will result in documentation of actual water savings from voluntary landscape water budgets. There will also likely be information gathered during the process on any difficulties encountered in setting up the water budgets and any suggestions for agencies to make the process easier and/or more cost-effective. This data will benefit agencies throughout the state by justifying the costs involved in setting up water budgets as required by BMP#5.

### **Critical Issues**

BMP#5, the Water Conservation in Landscaping Act (AB 325), and the Urban Water Management Act (AB 797), detail how much water should be used in the landscape. These laws and regulations use scientific information on the amount of water needed to maintain healthy landscapes.

This study will provide agencies throughout the state with quantitative data to justify setting up water budgets as required by BMP#5.

#### Nature, Scope and Objectives of the Project

The project will determine water savings for voluntary water budgets in landscape sites. This study entails gathering landscape site information such as location, area of landscape, plant materials, dedicated water meter, and previous water-use data. With the above information in hand, the development of water budgets can be accomplished in cooperation with participating agencies. The goal is to achieve higher water use efficiency in the landscape by irrigating based on the water budgets. With the implementation of this project, participating agencies, landscape companies, property managers, and the public will be able to utilize the information provided to save water while maintaining a healthy landscape..

#### Methods, Procedures, and Facilities

Sites will be identified by working with participating retail water agencies. Those agencies will provide water use data to establish a base-line for comparison after the water budget is developed and distributed to customers. The customers' landscape areas will be measured either manually or using GIS systems and then combined with local weather data to calculate their individual water budget. The water budget information will be distributed to the customer. Once water budgets are in place, water savings will be tracked and monitored. When monitoring is complete, water use data will be compiled, water savings will be determined, and a final report will be written.

#### Project Schedule



#### Monitoring and assessment

Metropolitan will monitor all stages of this project. Water use will be determined based on comparisons of water use before the water budget information is provided to water use after the information goes out. Analysis will show the

amount of water savings achieved through voluntary water budgets. The final report will also indicate any issues encountered when setting up the water budgets and any generalizations that can be made about customers, sites, or water savings.

### **C. Outreach, Community Involvement, and Information Transfer**

#### **Outreach Efforts**

This study will benefit, inform, and educate those customers involved in receiving water budget information. The larger outreach benefit will be when many other agencies are able to justify establishing water budgets for their customers. The distribution of the water budget information to customers, along with a comparison to their existing water use will educate them about the proper amount of water to use on their landscape. Reducing their outdoor water use to the actual amount needed by the plants will save water, but will also be teaching customers how much water is being wasted.

By providing customers with this information on the correct amount of water to be using on their landscape, agencies also have the opportunity to encourage participation in additional conservation programs. For example, customers who are having trouble staying within their water budget can be offered audits or incentives on irrigation system improvements.

#### **Information dissemination**

Metropolitan will make this information available statewide by making the final report available in both hard copy and on the website. The report would also be provided to the California Urban Water Conservation Council to be made available statewide.

### **D. Qualifications of the Applicants, Cooperators, and Establishment of Partnerships**

Resume of program manager is attached (Attachment 1). This project will involve several of Metropolitan's member agencies or their retail agencies. Selection of partners will be based on the need to gather a wide cross-section of information, particularly different weather zones.

## E. Costs and Benefits

### Budget summary and breakdown

<b>Costs</b>	<b>Total Costs</b>	<b>Met Share</b>	<b>CALFED Share</b>
Salaries and wages	\$50,000	\$50,000	
Fringe Benefits			
Supplies			
Equipment			
Services or consultants	\$500,000		\$500,000
Travel			
Other Direct Costs			
<b>Total Costs</b>	<b>\$550,000</b>	<b>\$50,000</b>	<b>\$500,000</b>

### Budget justification

Costs include all costs for: identifying dedicated meter accounts, identifying sample sites, gathering and organizing base-line data, measuring landscape areas, developing water budgets, developing a distribution method for providing water budget information to the customer, tracking the water savings, and compiling a detailed report of findings.

### Benefit summary and breakdown.

The benefits of this project would be to quantify the savings of voluntary landscape water budgets. BMP No. 5 estimates a potential savings of 15 percent, however no studies have been conducted to determine actual savings achievable. This study would be useful statewide for agencies to justify expenditures for setting water budgets based on the amount of water savings achievable.